

GRAPPLES AND GRAPPLE SAWS FOR PROFESSIONAL FORESTRY

Version 2, May 2015



HOW TO CHOOSE THE RIGHT GRAPPLE

Since the beginning of the 1960's we have been developing grapples at the heart of Västerbotten county in a town called Vindeln. This is where our factories are located. Year in, year out, our operation has had a timeless, clear objective: to provide machine operators with the best possible conditions for collecting, moving and sorting timber.

Our grapples have also been developed in line with us identifying new and better ways of providing operators with these conditions. After more than half a century, we are now proud to be able to tell you about the grapples described in this brochure.

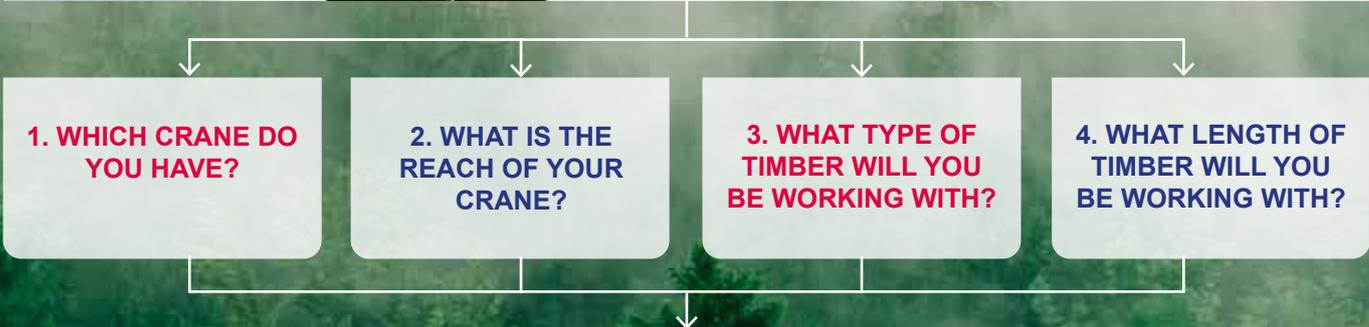
We produce three series of grapples for global forestry, optimised for forwarders and truck cranes as well as chippers. Whichever series you choose, it has been produced to enable you to work effectively with complete control and precision.

Choose between our three series of grapples:

- CR is suitable for working with round timber.
- CE is suitable for working with wood fuel.
- CI is suitable for handling single logs.

Choose between our grapple variants and grapple saws:

- The HD variant is a more powerful grapple that can handle larger loads and tougher operations.
- The X variant has a claw design that facilitates timber sorting and penetration.
- Our grapple saws are suitable for most grapples and can cope with a variety of timber dimensions.



THE TABLE PROVIDES AN INDICATION OF WHICH GRAPPLE YOU SHOULD SELECT

The grapple you should select depends on several different factors. This table provides an indication of which grapple is suitable for you, based on the crane you have and its reach. The table is based on you working with e.g. pine, spruce or birch with a timber length of approx. 4.5 metres.

GROSS TORQUE	40-50 kNm		50-60 kNm		60-75 kNm		75-90 kNm		90-110 kNm		110-140 kNm		140-170 kNm	
CRANAB CRANE	FC45		FC53		FC6		FC8		FC10		FC12		FC16	
REACH	ET	DT	ET	DT	ET	DT	ET	DT	ET	DT	ET	DT	ET	DT
CR200														
CR250														
CR280 (X)														
CR360 (X)														
CR360HD (X)														
CR400 (X)														
CR400HD														
CE250														
CE270K3														
CE280														
CE360														
CH160														

ALWAYS TALK TO US OR YOUR DEALER BEFORE SELECTING A GRAPPLE. YOU CAN FIND YOUR NEAREST DEALER AT WWW.CRANAB.SE



Cranab CR



Cranab CE



Cranab CI



Cranab CRX



Cranab HD

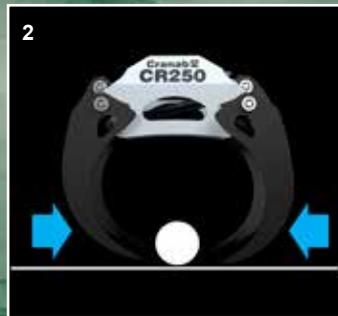


Cranab GSK

The X grapples give new meaning to the word versatility. They have been built to further improve the excellent properties of the standard grapples, with a claw tip that makes it easier to sort, pick and penetrate down between the stems when loading and unloading.

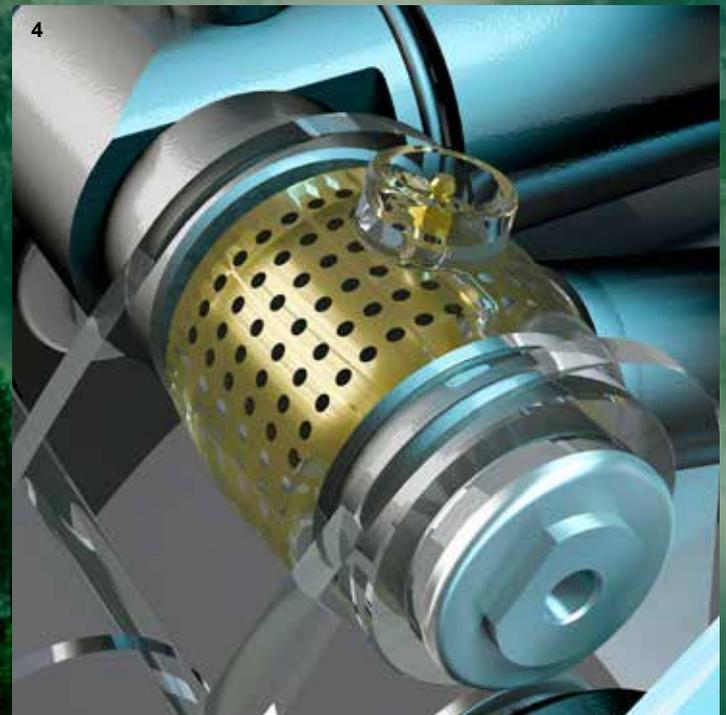
The HD grapples are built for large cranes and heavy lifting. They have more material in the cradle and claws, larger journal diameters and solid bushings with seals.

The **GSK** grapple saw cassettes are supplied for grapples ranging from the CR/CE250 up to the CR400 and with saw bar lengths ranging from 75–100 cm. Saw chain tensioning and saw bar return are both automatic. The chain is lubricated from a separate lubricating oil tank, and the amount of oil can be easily adjusted.

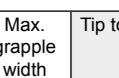


PROPERTIES AND MATERIALS

1. **One of the most important properties of a grapple is how it rolls the timber in** when you close it. Our grapple claws are designed so that the timber rolls smoothly up against the underside of the grapple cradle without catching or blocking the movement.
2. **When you are picking from the ground, it is important that you do not dig down and pick up moss and soil.** The geometry of our grapples and the design of the claw tips means that you can close the grapple and pick from the ground without the claws digging down.
3. **It is important for the grapple to be able to penetrate down into a pile of timber without damaging it.** The design of our claw tips and the force in the grapple cylinder means that you can pick from the timber stack or from your own load smoothly.
4. We have opted exclusively for **high-tensile steel** with optimum properties in order to satisfy the heavy demands regarding service life that are placed on a grapple. We use **expander pins** in holes that have been machined with a high degree of accuracy. This ensures that the static **bearing seatings** are still intact after many years of operation.



TECHNICAL DATA

CRANAB GRAPPLES												
Model	Max. working pressure	Weight								Tip force at:		Expander pins
										Max. grapple width	Tip to tip	
	Bar	Kg	m ²	mm	mm	mm	mm	mm	mm	kp	kp	kg
CR200	190	115	0.19	1290	82	341	704	781	730	920	2000	No
CR250	235	170	0.23	1443	57	456	780	862	1018	1232	3500	Yes
CR280	235	200	0.26	1500	90	456	784	886	1059	1242	3500	Yes
CR360	235	270	0.33	1820	124	520	801	990	1440	1590	5000	Yes
CR360HD	235	340	0.33	1816	124	576	802	975	1440	1590	7000	Yes
CR400	235	295	0.40	1980	129	520	885	1066	1752	1965	5500	Yes
CR400HD	235	375	0.40	1980	129	576	885	1066	1750	1960	7000	Yes
CE250	235	185	0.23	1443	57	456	780	862	1018	1232	3500	Yes
CE270K3	230	167	0.24	1255	90	412	821	856	1240	1470	3500	Yes
CE280	235	225	0.25	1500	90	460	780	880	1060	1240	3500	Yes
CE360	235	295	0.30	1820	124	550	755	955	1440	1590	5000	Yes
CI160	230	163	0.14	1098	40	320	799	867	1190	1600	3500	Yes
CRANAB CRX GRAPPLE												
CR280X	235	200	0.26	1500	90	456	784	886	1059	1242	3500	Yes
CR360X	235	270	0.33	1820	124	520	801	990	1440	1590	5000	Yes
CR360HDX	235	340	0.33	1816	124	576	802	975	1440	1590	7000	Yes
CR400X	235	295	0.40	1980	129	520	885	1066	1752	1965	5500	Yes
CRANAB GRAPPLE SAWS						CRANAB GRAPPLE SAW CASSETTE						
	Weight excl. rotator, kg	Saw bar length, cm	Max. cutting diameter, cm	Max. load, kg	Saw motor displacement	14 cc						
GSK/CR250	275	75	48	3500	Rec. working pressure	19–25 Mpa						
GSK/CR280 (X)	310	75	50	3500	Rec. flow (min–max)	80–100 l/min						
GSK/CR360 (X)	380	82	55	5000	Saw bar	.404/75, 82, 90, 100 cm						
GSK/CR360HD (X)	450	82	55	7000	Chain tensioning	Auto						
GSK/CR400 (X)	405	90, 100	60.70	5500	Chain lubrication	Adjustable						
GSK/CR400HD	515	90, 100	60.70	7000	Oil tank	Separate						
GSK/CE280	335	75	50	3500	Saw bar return	Auto						
GSK/CE360	405	82	55	5000	Weight, saw cassette incl. adapter	110 kg						

We reserve the right to make amendments.